

LABORATORY BULLETIN

DEPARTMENT OF HEALTH & ENVIRONMENTAL SCIENCES, HELENA, MONTANA

NO. 65 Editor : David B. Lackman, Ph.D., Administrator, Laboratory Division
August 20, 1976

NATIONAL PROFICIENCY EXAMINATION FOR QUALIFICATION AS A CLINICAL LABORATORY TECHNOLOGIST

Because the number of applicants for the third session of this examination has exceeded the capacity of the conference room in the W. F. Cogswell building, it will be held in the House of Representatives. The revised announcement should read as follows :

DATE : October 8, 1976 (Friday)
TIME : 9:00 A.M. - 4:00 P.M.
PLACE : House of Representatives, Capitol Building, Helena, Montana

These examinations are authorized by Public Law 92-603, the Social Security Amendments of 1972 (see Lab. Bulletin 45). Information on these examinations is also to be found in Bulletins 55, 59, 60, 61, 63, 64. The fourth and final sessions for examinations authorized under the law will probably be in December, 1977. Here is a summary of the results for Montana on two sessions of the examination already held :

		Number taking the test		Number achieving a passing grade	
		Technologist	Cytotechnologist	Technologist	Cytotechnologist
March	1975	28	3	9 (32%)	1 (33%)
November	1975	25	3	16 (64%)	2 (66%)

MEDICAL TECHNOLOGY

The Placement Committee for Montana Technologists has moved from Bozeman to Crow Agency. The new address is :

Dick Moran, Chairman, Placement Committee
Montana Society for Medical Technology
Laboratory, PHS Indian Hospital
Crow Agency, Montana 59022

If you need a technologist, cytotechnologist, or technician, let Dick know about it. Likewise, if you need a job, it might be a good idea to register with him.

There are five certified Medical Technologists working in our laboratory as Microbiologists. Four are MT (ASCP); one is licensed in California as a Medical Technologist. Also, the vice-chairman of the Board of Health and Environmental Sciences has a background in Medical Technology.

HIGHWAY ALCOHOL PROGRAM

Those involved in Montana's highway alcohol program (Highway Patrol, Department of Health & Environmental Sciences, and Highway Safety Division) are concerned that data isn't being used in the attack on alcoholism by identifying the problem drinker

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to those agencies responsible for the social and health ramifications of the abuse of alcohol. Representatives of the agencies mentioned met on May 25, 1976 to start moving in this direction. In about 90 percent of DWI cases, it is a person's first contact with the law. However, about 80 percent of DWI's turn out to be problem drinkers. The Department of Health and Environmental Sciences should become more involved in the preventive aspects of the problem because the Department of Institutions seems to be pretty much taken up with maintenance and treatment.

The subject of getting full value from Highway Alcohol Programs also was broached at a Region VIII State Toxicologists' Workshop - Chemical Testing of Blood Alcohol Levels, June 8-10 in Denver which was attended by Walter Jankowski, Chief of the Chemistry Laboratory Bureau. Whereas AA and other health-related programs deal mainly with "walk-ins", highway alcohol testing programs deal with problem drinkers who refuse to admit the fact to themselves or to seek help - it's a way of identifying the problem drinker. (Comment of John V. Moulden, National Highway Transportation Safety Administration) However, when Jankowski inquired as to what states were doing with their data, all used it for enforcement purposes only - none used, or had ever tried to use it from a health standpoint. In the effort started as a result of the conference on May 25, it appears that Montana stands alone.

That DWI is still a problem on our highways is attested to by some figures from the Annual Report of the Montana Highway Patrol for 1975. Under "Driver Improvement Actions", there were 3,600 arrests for DWI; and under the heading "Fatalities and Drinking" :

- 49% of drivers killed had been drinking
- 34% of passengers killed had been drinking
- 11% of pedestrians killed had been drinking
- 40% of all persons killed had been drinking

To bring this situation into 1976, the following item appeared in the Helena Independent Record, August 8, 1976 : "Attorney General Robert Woodahl says a drinking driver or pedestrian was involved in 65 of the 92 fatal traffic accidents that occurred in Montana during the first half of this year.

Woodahl said that speed too fast for conditions, drinking or a combination of the two factors were at least partially to blame in 73 percent of the fatal accidents." (Under the provisions of 32-2141, R.C.M. 1947 "Implied Consent" Law; and Montana Administrative Code 16-2.26(1)-52600, Alcohol Analysis, Quality Control, our laboratory has the responsibility for the laboratory and scientific aspects of the program.)

VIROLOGY

Influenza : Here is a summary of HAI tests under our Influenza surveillance program mentioned in Bulletin 63 :

Montanans tested for influenza hemagglutination-inhibition antibodies -
July 1976

Number of persons with antibody titers :

≥ 10	≥ 40	≥ 10	≥ 40	≥ 10	≥ 40
A-Victoria		A-New Jersey		B-Hong Kong	
72/183 (40%)	60/183 (33%)	17/183 (9%)	22/183 (12%)	13/51 (25%)	8/51 (16%)

Some of the A/N.J. (Swine-like) titers were 1:160 or greater with little, if any, reactivity against other antigens. This rules out cross reactivity and suggests that sporadic, isolated cases of influenza due to A/Swine virus have been occurring in Montana. On specimens representing persons in the microbiology laboratory, the four in the A/N.J. ≥ 40 group were from older individuals. The 12 percent positive figure in this group is very close to what we found among university students in 1957 in an influenza HAI antibody survey (Lackman, D., Casey, M., Philip R., Owen, C., and Reinhard, K., Canadian J. of Public Health 50 : 71-78, February 1959).

Here is a review of the antigenic formulae for influenza viruses :

H = hemagglutinin; N = neuraminidase antigen; '00 = year isolated

A/Swine/'31	Hsw1N1	This virus was isolated by Shope two years before clarification of the etiology of human influenza.
A/Mayo/'76	Hsw1N1	
A/New Jersey/'76	Hsw1N1	
A/PR8/'34	H0N1	This was the first influenza virus isolated from man.
A/FM1/'47	H1N1	
A/Sing/'57	H2N2	This is the original "Asian Influenza".
A/HK/'68	H3N2	
A/Port Chalmers/'73	H3N2	
A/Victoria/'75	H3N2	(The current "epidemic" strain.)
B/Hong Kong/5/'72	6X1-HP	Our last experience in Montana with multiple cases due to this virus was early in 1974.

(We are WHO COLLABORATING LABORATORY Number 37.)

In Bulletin 64 I mentioned two agents, adenoviruses and mycoplasma, causing illnesses in man which could be confused with viral influenza. Chlamydia (psittacosis group) should have been included also. Another group of viruses which bear watching are the arenaviruses (Lassa, Junin, LCM, Machupo etc.). Rodents may be chronically infected with them and they can cause acute disease, often fatal, in man and other animals. Man acquires them by exposure to excrement of infected rodents. Except for LCM, these viruses haven't cropped up in continental U.S. They have been found in connection with human cases of disease in Argentina, Bolivia, Nigeria, and S. Russia. In retrospect, we believe they were involved also in Korean hemorrhagic fever.

The widespread epidemic of influenza which has been occurring in the Southern Hemisphere reached a peak in mid-June. Isolates continue to be reported as resembling A/Victoria/3/'75. One isolate resembling A/New Jersey/8/'76 has been reported by Naval Medical Research Unit 2 in Taiwan. It was collected in January from a taxi driver hospitalized at that time in Manila.

ADDITIONAL NOTE : In screening newborn infants from Montana for hypothyroidism (T₄), two cases of congenital hypothyroidism have been detected. This yields a ratio of 1:6,500 - in earlier studies from Canada a ratio of 1:8,000 was reported.

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